

GENETIC ALGORITHM VS. REINFORCEMENT LEARNING

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Abstract: *The flow-shop scheduling problem is a very important practical problem. The main goal of this scientific work is to take a survey of the solution methods of permutation flow-shop scheduling problem, to demonstrate a simple evaluating algorithm, to describe a genetic algorithm approach which produces reasonably good results very quickly, finally to compare the genetic algorithm with heuristic methods (for example: priority rules in Palmer, Dannenbring's method, CDS algorithm and reinforcement learning) considering logistic conditions and objective functions such as minimum makespan, maximum machines utilization and minimum work in process inventories.*

Key words: *scheduling problem, genetic algorithm, reinforcement learning, makespan, idle and waiting times*



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